

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB 2004/050854

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7: F16K 3/02, B81B 3/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: B81B, F16K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6131879 A (STEFAN KLUGE ET AL), 17 October 2000 (17.10.2000), figure 2B --	1-17,24-26
A	US 20030070716 A1 (METIN GIOUSOUF ET AL), 17 April 2003 (17.04.2003), figure 1 --	1-17,24-26
A	US 6523560 B1 (KIRT R. WILLIAMS ET AL), 25 February 2003 (25.02.2003), figure 1C --	1-17,24-26
A	DE 10027354 A1 (BARTELS MIKROTECHNIK GMBH), 13 December 2001 (13.12.2001), figures 9A,B -- -----	1-17,24-26

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

\* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "I" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

11 February 2005

Date of mailing of the international search report

16 -02- 2005

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

30/01/2005

International application No.

PCT/IB 2004/050854

US	6131879	A	17/10/2000	DE	19648730 A,C	20/08/1998
				DE	19703415 A,C	05/11/1998
				DE	19735156 C	29/04/1999
				DE	59703239 D	00/00/0000
				DE	59703609 D	00/00/0000
				EP	0914563 A,B	12/05/1999
				EP	0914564 A,B	12/05/1999
				JP	2000507681 T	20/06/2000
				JP	2000507682 T	20/06/2000
				US	6142444 A	07/11/2000
				WO	9823868 A	04/06/1998
				WO	9823869 A	04/06/1998
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US	20030070716	A1	17/04/2003	DE	20116898 U	17/01/2002
				DE	50200795 D	00/00/0000
				EP	1306598 A,B	02/05/2003
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US	6523560	B1	25/02/2003	AU	5905499 A	27/03/2000
				CN	1322282 T	14/11/2001
				EP	1117937 A	25/07/2001
				JP	2002524698 T	06/08/2002
				US	6761420 B	13/07/2004
				US	20020174891 A	28/11/2002
				US	20030098612 A	29/05/2003
				WO	0014415 A	16/03/2000
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DE	10027354	A1	13/12/2001	WO	0193228 A	06/12/2001
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## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

I: Claims 1-17 and 24-26 directed to a microvalve for flow regulation and a method for its operation.

II: Claims 18-23 directed to a microsystem for electro-pneumatic pressure control.

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.: 1 - 17, 24 - 26

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.